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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HOLTON, STEVEN E	

ART UNIT	PAPER NUMBER
2673	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,310	OKADA, KAZUTERU	
	Examiner	Art Unit	
	Steven E. Holton	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because of the following informalities:

Page 7, line 26, the misspelled word 'south bride' should be 'south bridge'.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 9, 13, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 9, 13, and 19 recite the limitation "touch pad device" in last line of the each claim. There is insufficient antecedent basis for this limitation in the claim. The claimed invention recites an electronic apparatus with a touch pad. The touch pad is not shown to have click buttons on the actual touch pad face, but rather next to and closely associated with the touch pad device. Fig. 1, elements 113a and 113b are the

presumed click buttons and element 112 is the actual touch pad. Thus the 'touch pad device' is unclear if it is meant to refer to the entire electronic apparatus, a grouping of components of the apparatus, or the actual touch pad recited in independent claims 1, 8, 11, and 18 respectively. For the purposes of examination, the Examiner assumes that the 'touch pad device' is an unnamed grouping of the touch pad along with associated buttons that is a component of the larger computer system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 5-10, 11-13, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Louis et al. (USPN: 6088023), hereinafter Louis, in view of Lambrechts (USPN: 6160538) and further in view of Butler et al. (USPN: 6018340).

Regarding claims 8 and 18, which are drawn to an apparatus and associated method of operation, Louis discloses an electronic apparatus comprising, "a touch pad (Fig. 1, element 16; col. 4, lines 50-63);" and a mode switching section that switches the touch pad between two modes of operation, the mode switching is controlled by switch (Fig. 1, element 18; col. 4, lines 50-63 and col. 5, lines 11-23 and 47-56). Louis describes the two modes as 'absolute' and 'relative' input modes (abstract). The

'absolute' mode described by Louis operates in the manner that the touch pad corresponds to the entire display screen so that touching a spot on the touch pad will place the cursor on a specific location on the display screen (col. 7, lines 29-61) whereas the 'relative' mode the input within the touch pad is related to the selected work area on the screen (col. 5, line 57 – col. 7, line 18).

However, the Louis does not discuss using a vector to calculate the velocity and direction of the motion of the cursor as in the claimed 'second operation mode' nor does he disclose a mode of operation in which the 'actual screen' can be moved outside of the range of the display. Lambrechts discloses a method of encoding pointer motion on a screen based on the calculation of a vector where the relationship between a defined origin point and the indicated point disclose the direction and velocity of displacement (col. 3, line 51 – col. 4, line 29). Lambrechts also discloses that the method can be used with "joystick or touch pad instead of trackball (col. 3, lines 34-35)."

At the time of invention it would have been obvious to one skilled in the art to combine the teaches of Louis and Lambrechts to produce a touchpad input device with multiple modes of input including a more typical 'absolute' or 'relative' input system from Louis and a vector based system from Lambrechts. The motivation for doing so would have been "to extend battery-life (Lambrechts, col. 1, line 46)" and "to be offered convenient control over the parameter to be adjusted... convenient control over more than one parameter (for example, moving the pointer over the TV screen) (Lambrechts, col. 1, lines 49-55)."

Butler discloses a method of operation for computer system with multiple display screens where the multiple display screens comprise a single 'virtual desktop' (col. 1, lines 52-63). Butler further shows an operation of dragging a window (actual screen) on one display to a location outside the range of a single display screen (Fig. 13b; col. 16, lines 22-32). Such an action would be performed during a 'drag operation mode'. The standard method of entering a drag operation mode on computer systems involves using a button click and hold to change from standard movement of the cursor on the screen to moving the window (actual screen) on the screen and to locations outside the range of the display. The computer processor acts as the mode switching section by reading input clicks to determine if the system is in a standard motion or drag motion mode. The Examiner also notes that the ability to drag a window outside the range of a display monitor is a standard function within the Windows® operating system and is usually associated with the term 'virtual desktop'.

At the time of invention it would have been obvious to one skilled in the art to utilize the touchpad input methods of Louis, Lambrechts and providing the added functionality of allowing actual screens on the display to be moved to ranges outside of the display screen in a second operation mode such as used by Butler. The motivation for doing so would be to reduce screen clutter with large numbers of different windows or applications used on a monitor by allowing windows to be moved out of the way so that only some applications can be viewed by the user (Butler, col. 1, lines 41-63). Thus, it would have been obvious to combine the teachings of Louis, Lambrechts and Butler to produce a device and method of operation with at least three modes of

operation including normal cursor movement, cursor movement provided by calculating a vector relationship between the a reference point and current indicated point, and the ability to drag a window outside the range of the display as specified in claims 8 and 18.

Regarding claims 9 and 19, Louis discloses using a button to switch between operation modes (Fig. 1, element 18; col. 5, lines 11-23 and lines 47-56). And the standard method of changing from a normal placement mode and a drag operation is by pressing and holding the left mouse button, which is shown by Louis but not labeled or discussed as it is considered a standard part of the input system (Fig. 1a, the smaller rectangles below touchpad (element 16) are located in the standard position of left and right selection buttons for a touchpad input system.

Regarding claims 1 and 11, the Examiner notes that the limitations of this claim are merely a subset of the limitations of claims 8 and 18 respectively drawn towards the first and second mode of operation. Therefore, the combination of Louis, Lambrechts, and Butler can also be applied to claims 1 and 11.

Regarding claims 2 and 12, Lambrechts discloses a process section (Fig. 1, elements 122, 124, 130, and 132; col. 3, line 30 – col. 4, line 11). The 'delta vector', which is derived from the 'code vector', described by Lambrechts is used to define how far the cursor will move on the display screen with respect to the previous position (col. 4, lines 30-38). The different delta vectors would move the cursor at different speeds across the display as indicated by a user.

Regarding claims 3 and 13, Louis discloses using a button to switch between operation modes (Fig. 1, element 18; col. 5, lines 11-23 and lines 47-56).

Regarding claims 5 and 15, which are drawn to an apparatus and associated method of operation, the Examiner notes that the modes of operation of the claims are merely a subset of the modes of operation of claims 8 and 18 and the arguments can further be applied to claims 5 and 15.

Regarding claims 6 and 16, which are drawn to an apparatus and associated method of operation, the Examiner notes that although neither Louis, Lambrechts nor Butler expressly state that a pointer can be moved from area to area without moving the actual screen that the cursor is displayed on. This method of operation would be inherent with the operating system of Butler as part of the first mode of operation. In the standard 'first operation mode' the cursor is moved in response to user input. A user could move the cursor from one window to another selecting different applications or areas to point to on the screen without dragging the window that the cursor was displayed in to a new location on the display. Dragging a window would only be accomplished during the second mode of operation. This method of cursor and window manipulation is standard within the Windows® operating system which Butler discusses extensively as a possible operating system to implement his multiple window system with as in col. 5, lines 3-18.

5. Claims 4, 10, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Louis, Lambrechts, and Butler as applied to claims 1, 8, 11, and 18 above, and further in view of Gillespie et al. (USPgPub: 2002/0171029), hereinafter Gillespie.

Regarding claim pairs 4 and 14, and 10 and 20, which are drawn to apparatus and associated methods of operation, the Examiner notes that the limitations of these claims are identical and they merely differ as being dependent on different independent claims. As discussed above, the combination of Louis, Lambrechts and Butler disclose all of the limitations of claims 4, 10, 14, and 20 except, "wherein the mode switching section switches between the first operation mode and the second operation mode in response to contact with a specific area provided for each of the operation modes as a part of the touch pad."

Gillespie discloses a touch pad input device that incorporates a display so that icons can be displayed on the touch pad surface (Fig. 4, elements 410, 412, 414, 416, 418, 420, 422). These icons can be selected by touching the designated area on the touch pad to change the mode of operation of the touch pad and display beneath the touch pad. This includes operating as a calculator, running programs on the computer, etc. as discussed in paragraphs 51-59. Although Gillespie does not expressly discuss changing different modes of operation such as between a relative mode and a vector calculation mode, such an icon to allow the switch from one mode to another would be

an obvious choice as a possible operation to be performed by pressing an icon on the touch pad.

At the time of invention it would have been obvious to one skilled in the art to combine the teachings of Louis, Lambrechts, Butler and Gillespie to produce a device as specified in claims 4, 10, 14, and 20. The combination of Louis, Lambrechts, and Butler would provide a touch pad able to operate in different modes of operation that could be selected by external buttons as suggest by Louis. By adding the teachings of Gillespie it would have been obvious that the mode selection buttons could also be incorporated on the touch pad rather than as external buttons. The motivation for combining the references would to provide a "touch screen with user interface enhancement (Gillespie, paragraph 8)". Thus, it would have been obvious for one skilled in the art to combine Louis, Lambrechts, Butler and Gillespie to provide a touch pad where mode switching buttons are provided on specific areas of the touch pad as disclosed in claims 4, 10, 14, and 20.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gillespie et al. (USPN: 5880411) discloses a touch pad with different areas of the touch pad providing different types of motion calculation, with vector calculated motion along the edges (Fig. 11; col. 26, line 45 – col. 32, line 51). Allen et al. (USPN: 5943052) discloses a touch pad with a section of the touchpad provided to operate as only a scrolling area for the current window. Fedorak et al.

(USPgPub: 2003/0222856) discloses a vector method of cursor movement for a touch screen and transmitted to a separate display device.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven E. Holton
November 4, 2005
Art Unit 2673

VIJAY SHANKAR
PRIMARY EXAMINER